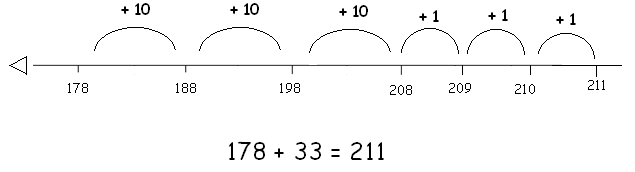
**Mathletics Task 2: The Four Processes**

Mental strategies – jump strategy review

When we add we can use the jump strategy to help us. Look at how we do this with

178 + 33.

1. First we jump up by the tens.
2. Then we jump up by the units.



**Now model how to use the jump strategy with these:**

1. 521 + 52 = 573



+50 +2

1. 225 – 47 = 178

-40 -2



**1**

**Mental strategies – jump strategy with decimals**

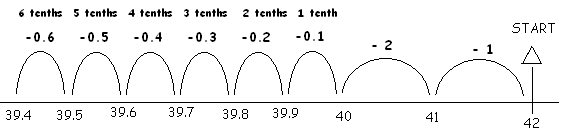
**1** G 1

We can also use the jump strategy when adding and subtracting decimal numbers.

For example 45 – 2.6.

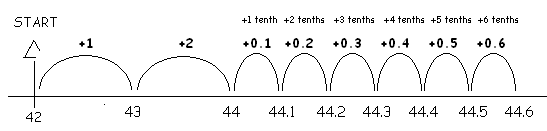
Remember that 2.6 is made up of 2 and 0.6. Youneed to subtract both parts. So when adding or subtracting, we work with the whole numbers first (2) and then the tenths (0.6).

Look at the example below when working out **42 – 2.6.**



This example show how we can use the jump strategy when adding decimals to whole numbers.

**42 + 2.6**



**Use the jump strategy to subtract these decimals. Break up the second number in your head:**

1. 36 – 3.3 = 33.3

-3.0 -0.3



1. 51 – 2.9 = 48.1

-2 -0.9



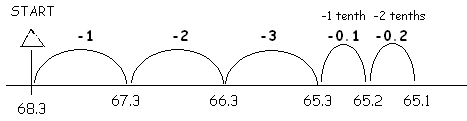
1. 68 – 3.9 = 64.1

-3.0 -0.9

****

The jump strategy proves itself to be useful when subtracting decimals from other decimal numbers. Have a look at this example:

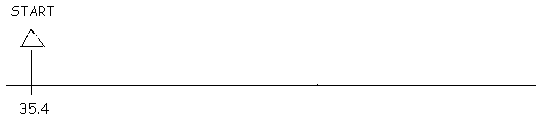
**68.3 – 3.2 = 65.1**



**Use the jump strategy to add the decimals**

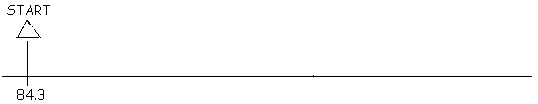
1. 35.4 + 3.1 = 38. 5

+3 +0.1



1. 84.3 + 1.8 =

-1 -0.8



**Use the jump strategy to answer the following:**

1. You win a spitball competition, beating your nearest competitor, ‘Spitball Steve’ by

1.6 m. Your mother would be so proud. If Spitball Steve spat 4.4 m, how far did you shoot?

Answer: 7.0

1. After weeks of practice Spitball Steve perfects his technique and beats your   
    previous winning shot by 1.1 m. How far does he spit?

Answer: 8.1

G 1

**3**

**Mental strategies – split strategy review**

Follow these steps when using the split strategy for addition or subtraction.

1. Split the second number into its different place values.
2. Add or subtract each part in turn.

For example: 347 + 178

Remember that 178 is 100 + 70 + 8

347 + 100 = 447

447 + 70 = 517

517 + 8 = 525

Your answer is **525**.

**Hint:** Breaking numbers down into place value parts can make the mental process much easier.

**1**

**2**

**Solve these problems using the split strategy**

**SUBTRACTION:**

1. 421 – 153 =   
   Step 1: 421-100= 321

Answer: 268

Step 2: 321 – 50 = 271

Step 3: 271 – 3 = 268

1. 632 – 138 =

Step 1: 632 – 100 = 532

Answer: 594

Step 2: 532 – 30 = 502

Step 3: 502 – 8 = 594

**ADDITION:**

1. 478 + 169 =  
   Step 1: 478 + 100 = 578

Answer: 647

Step 2: 578 + 60 = 638

Step 3: 638 + 9 = 647

1. 507 + 216 =   
   Step 1: 507 + 200 = 707

Answer: 723

Step 2: 707 + 10 = 717  
Step 3: 717 + 6 = 723

**150**

**Use the split strategy to solve these money problems:**

Table tennis $28.60 Baseball $42.15 Boxing $135.95

We can use the same process to subtract decimals:

**1** We split the numbers into whole numbers and decimals.

**2** We then rearrange the problem, subtracting the whole numbers and decimals separately.

**3** We add the 2 answers.

31 . 4 – 2 . 3 = (31 – 2) + (0.4 – 0.3)

= 29 + 0.1

= 29.1

**Complete these money problems (When working out, use the strategy shown above):**

1. The table tennis set costs $34.90 at the store down the road. If Gillian buys it here   
    it for $28.60,

How much does she save?

- = ( - ) + ( - )

60

90

28

34

34.90

28.60

= +

.30

6

=

$6.30

Answer:

**b)** Sanjeev saved $55.50 to buy the baseball kit. The kit cost $43.20.  
 How much of his savings remain after buying the kit?

55.50

43 .20

55

43

50

20

12

.30

12.30

- = ( - ) + ( + )

= +

= Answer:

1. The boxing gloves were $50.95. If Katya had a voucher for a $8.75 discount.

How much did Katya pay for the boxing gloves?

**5  
 - = ( - ) + ( + )**  
   
 = +  
 = Answer:

50.95

8.75

50

8

95

75

42

.20

42.20

**Applying strategies – addition and subtraction**

**2**

Complete these equations so that each answer is between 351 and 400. You may not use zeros in any part of the sum:

**a)** 279 + =

377

98

71

311

**b)**  + = 382

**c)**  – 287 =

353

640

**d)**  527 – = 316

211

**3**

**Applying strategies – choosing when to add or subtract**

Stef and Marly’s parents give each of them $10 pocket money each week. They must use some of it to buy their lunch from the school canteen every Friday.

**School Canteen Price List**

|  |  |
| --- | --- |
| **FOOD ITEM** | **PRICE ($)** |
| Ham and salad sandwich | $3.40 |
| Hot chicken roll | $3.60 |
| Ham, cheese and tomato sandwich | $3.50 |
| Sausage roll | $2.20 |
| Toasted cheese sandwich | $3.20 |
| Meat pie | $2.80 |
| Toasted ham, cheese and tomato sandwich | $3.60 |
| Tomato sauce | $0.30 |

***Over the week Stef has:* *Over the week Marly has:***

Hot chicken roll Sausage roll with **tomato sauce**  
 Meat pie with **tomato sauce** Toasted cheese sandwich

**2** toasted cheese sandwiches Toasted ham, cheese and tomato sandwich

Sausage roll with **tomato sauce** **2** ham and salad sandwiches. **Saved**  **Marly’s**

1. What was the total amount that Stef spent? **b)** What was the total amount that   
    Use the table below to show your working. Marly spent?

The top column is to show your trading.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Units | Tenths | Hundredths |
| 0 | 3 | 0 |
| 2 | 2 | 0 |
| 3 | 3 | 0 |
| 3 | 3 | 0 |
| 3 | 3 | 0 |
|  |  |  |
| 12 | 9 | 0 |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Units | Tenths | Hundredths |
| 3 | 6 | 0 |
| 2 | 8 | 0 |
| 3 | 3 | 0 |
| 0 | 3 | 0  +  = $ |
| 0 | 6 | 0 |
| +  = $  + |  |  |
|  |  |  |
| 10 | 6 | 0 |

1. Who spent the most money?

**Answer: Marly**

1. What was the difference?

**Answer:$2.30**

**2**

Below are some terms you come across in addition and subtraction word problems.

Highlight any terms that ask you to add in red. Colour any terms that ask you to subtract in green.

Find the difference between…

Who has less?

Find the difference between…

What is the total?

How many altogether?

Who has more?

How many more… than …?

Minus

plus

2

**1**

**Written methods – addition**

**Example: 1248 + 457**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **1** | **1** |  |
| **Th** | **H** | **T** | **U** |
| 1 | 2 | 4 | 8 |
| + | 4 | 5 | 7 |
| 1 | 7 | 0 | 5 |

1. Last month 1 550 fans supported the local football tournament. This month there are 568   
    more fans. How many fans supported the local tournament this month?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 1 | 5 | 5 | 0 |
| + |  | 5 | 6 | 8 |
|  | 1 | 1 | 1 | 8 |

1. Over the past 18 months, Chan spent lots of money on computer games. Last year, he spent $1   
    928 and this year, he has already spent $1562. How much has he paid for computer games so   
    far?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 1 | 5 | 6 | 2 |
| + |  | 9 | 2 | 8 |
|  | 2 | 4 | 9 | 0 |

**2**

**3**

**1**

**5**

1. 6 009 people are at a football match and 648 people are working at the ground. How many   
    people are there altogether?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 6 | 0 | 0 | 9 |
| + |  | 6 | 4 | 8 |
|  | 6 | 6 | 5 | 7 |

1. 1 382 people arrived at the pop concert by car and 4 553 arrived by train. How many people   
    attended the concert?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 1 | 3 | 8 | 2 |
| + | 4 | 5 | 5 | 3 |
|  | 5 | 9 | 3 | 5 |

G

**Written methods – subtraction**

**For example: 5411 - 3461**

|  |  |  |  |
| --- | --- | --- | --- |
| **1** | **11** |  |  |
| **Th** | **H** | **T** | **U** |
| (2) | (2) | 14 | 8 |
| - | 4 | 5 | 7 |
| 1 | 7 | 9 | 1 |

You are working hard to convince your parents that an overseas trip would be a far better idea than the usual 2 week camping holiday with Auntie Mabel and Uncle Bob. They are open to the idea as there are only so many campfire sing-alongs run by the Big Bob that they can take. Kum-bay-ah anyone? They have asked you to find the answers to the following questions.

C:\Program Files\Microsoft Office\Media\CntCD1\ClipArt1\j0174823.wmf

**Make sure you show your wrking out:**

C:\Program Files\Microsoft Office\Media\CntCD1\ClipArt2\j0215756.wmf

***Holiday Destinations***

7 days in Fiji ..................... $2 825 per family

9 days in New Zealand .....$1 834 per family

5 days in Bali .................... $5 793 per family

7 days in England ............. $7 447 per family

5 days in Hong Kong ........ $4 263 per family

**3**

1. How much cheaper is a week in Fiji than a week in England?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 7 | 4 | 4 | 7 |
| - | 2 | 8 | 2 | 5 |
|  | 4 | 6 | 2 | 2 |

Answer:

1. How much would a family save if they decided to go to Hong Kong for 5 days instead of Bali for 5 days?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | **Th** | **H** | **T** | **U** |
|  | 5 | 7 | 9 | 3 |
| - | 4 | 2 | 6 | 3 |
| 1 | 0 | 0 | 5 | 6 |

Answer:

**Written methods – adding and subtracting decimals**

When we add and subtract decimals we follow the same rules we use when working with whole numbers. We need to make sure we line up the place values and the decimal points.

Solve these addition problems. Remember to put the decimal point into your answers.

1. 64.16 + 17.17= kkk b) 84.96 + 12.39 =

96.35

81.33

|  |  |  |  |
| --- | --- | --- | --- |
| **Tens** | **Units** | **Tenths** | **Hundredths** |
| 6 | 4 | 1 | 6 |
| 1 | 7 | 1 | 7 |
| 8 | 1 | 3 | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Tens** | **Units** | **Tenths** | **Hundredths** |
| 8 | 4 | 9 | 6 |
| 1 | 2 | 3 | 9 |
| 9 | 6 | 3 | 5 |

+   
 +

Solve these subtraction problems. Ensure you put the decimal place in the correct place when you write your answer.

1. 98.62 – 19.38 = b) 31.66 + 17.69 =

49.35

79.24

|  |  |  |  |
| --- | --- | --- | --- |
| **Tens** | **Units** | **Tenths** | **Hundredths** |
| 9 | 8 | 6 | 2 |
| 1 | 9 | 3 | 8 |
| 7 | 9 | 2 | 4 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Tens** | **Units** | **Tenths** | **Hundredths** |
| 3 | 1 | 6 | 6 |
| 1 | 7 | 6 | 9 |
| 4 | 9 | 3 | 5 |

**1-**

**-**